

BEFORE THE  
**Federal Communications Commission**

WASHINGTON, D.C. 20554

**ORIGINAL  
FILE**

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**FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY**

In the matter of )

Amendment of the )  
Commission's Rules to )  
Establish New Personal )  
Communications Services )

GEN Docket No. 90-314  
ET Docket No. 92-100

RM-7140, RM-7175, RM-7617,  
RM-7618, RM-7760, RM-7782,  
RM-7860, RM-7977, RM-7978  
RM-7979, RM-7980

To: The Commission

**COMMENTS OF ARCH COMMUNICATIONS GROUP, INC.**

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Date: November 9, 1992

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## SUMMARY

Arch Communications Group, Inc. applauds the Commission's efforts to establish rules to govern Personal Communications Services ("PCS"), particularly in the allocation of the reserve 900 MHz band for narrowband PCS services. Although the Commission has indicated that it will bifurcate the narrowband PCS allocation if delayed by consolidation with the larger wideband PCS proceeding, Arch recommends that the Commission expedite the entire PCS proceeding, rather than severing the narrowband PCS for separate consideration. Severing the consolidated docket may have unintended adverse consequences, not the least of which would be to encourage speculative filings if the narrowband allocation is the first PCS application opportunity.

If narrowband PCS allocation is to be the future of today's paging industry, as Commissioner Sherrie Marshall has recently observed, the Commission must take the appropriate steps to ensure that the spectrum is dedicated to advanced technologies, and not simply to traditional paging services. With that in mind, Arch encourages the Commission to allocate all three of the proposed one MHz bands of reserve 900 MHz spectrum to narrowband operations and develop a channel plan which supports flexibility and development of a variety of services. An allocation plan that provides for some paired and some unpaired spectrum will encourage the continued development of these advanced services. Since PCS is intended to encompass a broad array of services, it makes sense to have a variety of bandwidths to encourage people to develop additional uses of this spectrum. It would also be beneficial for the Commission to

adopt licensing regions at the outset which reflect large natural service areas, instead of the proposed options in the Commission's Notice of Proposed Rulemaking in this docket. The speed in which the innovative narrowband PCS services can be offered to the public will be determined on how well the Commission's licensing process deters speculation.

Arch considers the narrowband PCS allocation to be too important for it to be used as a testing ground for the first auction experiment. Moreover, auctioning is likely to disadvantage small, locally based entities who may very well be in the best position to conceive and deliver personal communications services. Consequently, Arch supports the retention of the lottery process for PCS channel assignments with the following caveat: the Commission must adopt an array of application requirements along with the lottery in order to deter insincere applicants. Specifically, detailed technical showings and application fees which are sufficiently high to discourage speculation but which are sustainable under the the Commission's statutory authority to assess fees (for example, a two-tiered fee paid at the time of filing and a second processing fee being assessed against the lottery winner) are examples of regulatory incentives needed to stop speculation in valuable spectrum allocations such as is presented by the narrowband PCS proceeding.

With respect to the grant of pioneer's preferences in the provision of narrowband PCS services, Arch is concerned that the Commission has relaxed its standards for granting preferences,

particularly where a nationwide preference is at issue. Arch believes that MTel and other proponents of narrowband PCS can be accommodated through the adoption by the Commission of a well-reasoned channel assignment plan which offers meaningful licensing opportunities to serious proponents of advanced services. This would be a much better approach than relaxing the pioneer preference rules.

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	)	RM-7979, RM-7980
	)	
	)	PP-35 through PP-40, PP-79,
	)	through PP-85

TO: The Commission

**COMMENTS OF ARCH COMMUNICATIONS GROUP, INC.**

Arch Communications Group, Inc. ("Arch") hereby submits its comments on the Notice of Proposed Rulemaking ("Notice"), 7 FCC Rcd 5676 (1992), which seeks to establish rules governing the Personal Communications Services ("PCS"). In particular, Arch is responding to those portions of the Notice which address the proposed 900 MHz allocation respecting narrowband PCS services. The following is respectfully shown:

**I. Preliminary Statement**

1. Arch Communications Group, Inc. is a publicly held paging company that provides common carrier and private carrier

paging services through five operating companies in thirteen states.<sup>1/</sup> The company considers one-way messaging services to provide the most efficient and cost-effective method of mobile communication, and has devoted its attention to promoting and developing this service.

2. In recent comments before the Telocator annual convention in San Francisco, California, Commissioner Sherrie Marshall touted the narrowband PCS allocation as the "future of today's paging industry".<sup>2/</sup> This observation is certainly true, which explains Arch's earlier strong support for allocating the 930-931 MHz reserve band for advanced paging and messaging services.<sup>3/</sup> However, Arch believes that the narrowband PCS allocation will only represent the future if the Commission takes the appropriate steps to assure that the spectrum is dedicated to advanced technologies, and not simply to "plain old paging service". This premise forms the basis of a common recurring theme that runs throughout the following comments.

3. In the sections which follow, Arch addresses the principal issues raised by the Commission with respect to the

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<sup>1/</sup> Those subsidiaries are Arch Capitol District, Inc., Arch Southeast Communications, Inc., Arch Michigan, Inc., Arch Connecticut Valley, Inc. and Hudson Valley Mobile Telephone, Inc.

<sup>2/</sup> "The PCS Experience -- 'A Little Touch of Harry In The Night'", Remarks of Sherrie P. Marshall, Commissioner, FCC, Before Telocator Annual Convention, San Francisco, California, September 25, 1992.

<sup>3/</sup> See Comments of Arch Communications Group, Inc. filed June 1, 1992, ET Docket No. 92-100. See, also, RM-7617 (Telocator Petition seeking to allocate 930-931 MHz for Advanced Messaging Services ("AMS")).

narrowband PCS allocation. Organizationally, the issues are addressed roughly in the order they are raised in the Notice.

II. The Severance of the Narrowband PCS  
Issues From the Consolidated Dockets May  
Have Unintended Adverse Consequences

4. The Commission has broadly defined PCS to include a whole family of services. Notice at paras. 29-30. Because PCS is defined so broadly, the Commission has chosen to consider both narrowband and wideband personal communications services in a single consolidated proceeding. However, the Commission has recognized that the 900 MHz spectrum being considered for narrowband PCS services is now held in reserve, and thus does not raise many of the difficult issues regarding frequency coordination and spectrum clearing which pertain to the 2 GHz spectrum under consideration for wideband PCS. Consequently, the Commission indicates at paragraph 11 of the Notice that "if it appears that [the narrowband PCS allocation] will be delayed by this consolidation, we will consider separating ET Docket No. 92-100 from this combined proceeding."

5. The Commission's willingness to consider severing the narrowband PCS issues from the consolidated docket is admirable, but may have adverse unintended consequences. If PCS spectrum is made available to the public for application on a piecemeal basis, Arch is concerned there will be a feeding frenzy. There already has been sufficient attention paid to PCS in the media and the trade press as the next generation of mobile services to raise substantial concerns regarding the participation of speculators in the application process. If narrowband PCS happens to be the first application



opportunity, Arch is concerned that it will be the undue focus of speculation. Also, companies whose principal interest may be wideband PCS may nevertheless be inclined to file applications for narrowband PCS spectrum if it presents the only initial opportunity.

6. On balance, Arch recommends that the Commission expedite the entire PCS proceeding, rather than severing out narrowband PCS for separate consideration because of the potentially adverse implications severance may have on the volume of applications.

### III. Spectrum Allocations

7. The Commission is proposing that three distinct one MHz bands of 900 MHz spectrum be allocated for narrowband PCS operations (i.e. 901-902 MHz, 930-931 MHz and 940-941 MHz). Arch strongly supports the Commission's decision to include all three MHz of spectrum from the previously reserved bands in the current narrowband PCS allocation.

8. In comments it earlier filed in ET Docket No. 92-100, Arch advocated the reservation of the 930-931 MHz band solely for one-way uses. This position was based upon the burgeoning growth of messaging services, and a technical concern that the intermixture of high-powered base station operations and low-powered return link operations in this single band was not technically feasible. By expanding the allocation to include three MHz of spectrum, the Commission largely satisfies this concern. Industry proponents of narrowband PCS services have generally agreed that the 901-902 MHz band is well-suited to lower powered return link communications. By making this band available at the same time as the others, the

prospect for a successful acknowledgement, radiolocation, or talk back channel is greatly enhanced.

9. Also, because the Commission has broadly defined PCS, it is apparent that there will be new uses of these bands which go beyond messaging services. It makes sense, therefore, to incorporate additional spectrum in order to facilitate the development of diverse advanced services. As is set forth in greater detail below, Arch supports a channel plan that in fact has great flexibility and will result in the development of a variety of services.

#### IV. The 900 MHz Channel Plan

10. In paragraph 50 of the Notice, the Commission proposes to pair blocks of spectrum from the 901-902 MHz and 940-941 MHz bands and to provide for unpaired use in the 930-931 MHz band. Arch supports this proposal. As the Commission has properly noted, the pending proposals that relate to the 900 MHz band include a variety of services such as advanced paging, messaging, and CT-2. Some of the services are one-way and some are two-way. A 900 MHz allocation plan that provides for some paired and some unpaired spectrum will encourage the continued development of these advanced services.

11. The 930-931 MHz band is ideal for unpaired use. As the Commission is aware, this band is strategically located between existing paging bands, and has been reserved for advanced paging uses.<sup>4/</sup> Allowing advanced unpaired services to develop in this

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<sup>4/</sup> See First Report and Order, GEN Docket No. 80-183, 47 Fed. Reg. 24577 at para. 14 (1982).

portion of the spectrum will facilitate the migration of these advanced technologies to the adjoining paging bands over time, thereby accomplishing a reframing of the spectrum.

12. At paragraphs 51 and 52 of the Notice, the Commission offers several alternatives for subdividing the 900 MHz band into channels. As a first alternative, the Commission proposes that the size of the blocks in these bands be 50 kHz. A second alternative is to divide the bands into blocks of 250 kHz each. A third alternative would be to divide the paired blocks into 500 kHz channels, and to assign 930-931 MHz as a single one MHz block.

13. Arch favors the 50 kHz block proposal. This will create greater licensing opportunities for companies, like Arch, who are devoted to advancing the state of the art in messaging services. If too much spectrum is granted to each licensee, the number of licenses that will be issued is necessarily reduced. The Commission already has more than a dozen active proponents of 900 MHz proposals, and many of the largest and most prominent providers of messaging service are still waiting on the sidelines. In order to enjoy the benefits of robust competition among and between these potential applicants, the Commission must adopt a channel plan that creates a significant number of licenses.

14. A good lesson in this regard can be learned from the paging industry which is populated by a relatively large number of service providers, each of which controls a relatively small block of spectrum. The industry is successful, marked by robust competition, and is delivering important communications services to the public at a low cost. Selecting a 50 kHz channelization plan

for the 900 MHz frequency blocks will have a similar pro-competitive result.

15. Arch does consider it to be important for the newly allocated 900 MHz spectrum to be devoted to the next generation of messaging services, and not to traditional paging services. The Commission can take a couple of steps to assure this outcome. First, the Commission should avoid making any 25 kHz channel allocations. Because 25 kHz channel spacing is common in the traditional common carrier and private carrier paging bands, the use of 25 kHz spacing for narrowband PCS could serve to encourage a mere importation of older technologies to the newer bands. By adopting different channel bandwidths, applicants will be encouraged to provide different services.

16. In fact, Arch would support allocating some portion of the 900 MHz spectrum with minimum bandwidths of 100 kHz. Since PCS is intended to encompass a broad array of services, it makes sense to have a variety of bandwidths available in order to encourage people to develop additional uses of this spectrum.

#### V. Geographic Service Areas

17. At paragraph 60 of the Notice, the Commission properly recognizes that PCS service areas should be larger than those initially licensed in cellular. However, the four options that are offered for comment (i.e. 487 Basic Trading Areas, 47 Major Trading Areas, 194 telephone LATAs and Nationwide) do not properly reflect the geographic service areas that have already developed in the messaging business. Arch agrees with others who claim that a

regional plan by which the United States is divided into three to five large geographic regions would be appropriate.

18. Arch operates a series of wide-area paging systems in various portions of the United States, and thus is intimately familiar with the demands of the marketplace. Subscribers are demanding service in territories that extend beyond major trading areas. For example, Arch operates a single integrated paging system on a common frequency in the northeast region. The system encompasses the states of New York, New Jersey, Massachusetts, Connecticut, New Hampshire, Maine, Vermont, and Rhode Island. The public has demanded this coverage, which has required that Arch undertake the expensive and time consuming process of aggregating a variety of smaller service areas in order to meet this customer demand. It would be much better for the Commission to adopt licensing regions at the outset which reflect large natural service areas.

19. There is, however, no need for nationwide licenses. As earlier noted, Arch favors a licensing scheme that creates numerous licensing opportunities for a variety of competitors. Nationwide licenses necessarily reduce the number of licensing opportunities, and potentially reduce competition. Arch also would be concerned that a mixture of nationwide and smaller geographic areas would serve to give the nationwide carrier an inherent competitive benefit, thereby interfering with fair competition. Finally, and perhaps most important, if there is a developing market demand for nationwide services, the relatively small number of regions proposed by Arch would make it easy for carriers to reach intercarrier

agreements to aggregate the territories for nationwide service purposes.

## VI. Eligibility

20. Arch submits that holders of cellular licenses and/or wideband PCS licenses should not be eligible to hold narrowband PCS licenses in overlapping regions.

21. Cellular providers control large portions of spectrum and are being given by the Commission increasing flexibility to offer diverse auxiliary services.<sup>5/</sup> The Commission also is considering granting wideband PCS licensees relatively large blocks of spectrum. See Notice at paras. 35-40. The minimal technical standards being proposed for PCS will also allow wideband PCS licensees to put the spectrum to a variety of uses. If they want, cellular licensees and wideband PCS licensees can devote a portion of their spectrum block to narrowband PCS services. This being the case, there would appear to be no reason for them to be made eligible as well for narrowband PCS licenses.<sup>6/</sup>

22. Arch believes that restricting eligibility in this fashion will foster increased competition. Narrowband and wideband

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<sup>5/</sup> See 7 C.F.R. § 22.930 (1991). The Commission has specifically retained this rule under the Part 22 Rewrite Proceeding (Revision of Part 22 of the Commission's Rules Governing the Public Mobile Services, Notice of Proposed Rulemaking, 7 FCC Rcd 3658, (§ 22.901(d)) (1992)). See also Amendment of Commission's Rules to Authorize Cellular Carriers to Offer Auxiliary and Non-Common Carrier Services, Petition for Rulemaking of Telocator, RM-7823.

<sup>6/</sup> If Local Exchange Carriers ("LECs") are made eligible for wideband PCS spectrum, they too should be made ineligible for narrowband PCS spectrum.

PCS services will be competing with one another in the marketplace. If different categories of licensees are providing each service, competition will be enhanced.

## VII. Licensing Mechanisms

23. Arch does not support the use of auctions to assign narrowband PCS licenses. At the present time, the Commission does not have auction authority. Arch believes it is very important for the PCS allocation proceeding to be completed promptly, so that the United States can continue as a leader in the development and provision of personal communications services. The Commission cannot afford to hold up the proceeding while it is awaiting the authority it would need from Congress in order to issue licenses by auction.

24. Also, Arch considers the narrowband PCS allocation to be too important for it to be used as a test bed for the first auction experiment. Neither the Commission nor communications companies in the industry have any experience under an auction process. This is likely to cause confusion, uncertainty, and potential litigation. Arch believes it would be better to stick to known licensing mechanisms for an allocation of this magnitude.

25. Auctions also tend to favor larger, better financed entities whose size and scope of operations tends to move them further away from the needs of customers in the marketplace. PCS is a personal service business in which smaller, locally based entities could prove to be in the best position to conceive and deliver

innovative services. Arch believes that auctions work unfairly against this category of potential service providers.

26. Consequently, Arch has concluded that the Commission should retain its lottery process for PCS channel assignments. Arch shares the Commission's concern, however, over the speculation that has occurred in prior lottery contexts. Arch concludes that the Commission must adopt a whole array of application requirements along with the lottery in order to deter insincere applicants. Specifically:

A. Detailed Technical Showings

27. The ability of application preparers to mass-market boilerplate applications is enhanced when the Commission calls for so-called postcard lotteries or otherwise eliminates detailed technical showings. Arch believes the Commission should require applicants to identify proposed transmitter sites and submit actual engineering for each site. This will have a dual benefit. First, it will require applicants to devote more attention to the development of a serious technical plan. Second, and perhaps more important, the receipt and processing of more detailed applications will enable the Commission to charge higher application fees, which again will deter speculative, insincere applicants.

B. Application Fees

28. At paragraphs 89 and 90 of the Notice, the Commission sets out various proposals for charging application fees in



connection with PCS applications. Arch supports the adoption of an up-front application fee that is sufficiently high to discourage speculation. The ability of so-called application "mills" to convince persons with no *bona fide* interest in communications facilities to file scores of applications will be drastically reduced if the applicants must demonstrate a seriousness of interest by submitting a significant fee.

29. If the Commission adopts the relatively large geographic regions supported by Arch, and requires applicants to demonstrate coverage of a high percentage of the region as part of the initial application, the number of transmitter sites involved will be substantial. The Commission could, therefore, justify a significant application fee in a manner consistent with the existing statutory framework.

30. The Commission must be careful, however, to structure the fees in such a manner that they are sustainable. It would be inconsistent with the general requirement that fees be related to application processing costs for the Commission to require a substantial fee in connection with a "postcard" lottery. Similarly, it would be inconsistent for the Commission to require fees on a per-transmitter basis, while eliminating the requirement that applicants submit engineering with respect to each proposed transmitter site. Arch urges the Commission to adopt a fee schedule which not only results in substantial fees, but also bears a reasonable relationship to the Commission's processing costs.

31. One proposal that the Commission should seriously consider is a two-tiered fee structure in which an initial fee related to conducting the lottery is charged, and a further fee

related to the processing of the application is charged, with the later being collected from the lottery winner. This will eliminate potential challenges based upon the claim that the Commission cannot charge substantial per-transmitter fees for applications that are not, in fact, processed.

#### VIII. Regulatory Status

32. At paragraphs 94 through 98 of the Notice, the Commission asks whether PCS services should be regulated as private or common carrier services. Arch favors common carrier regulation, provided that the Commission preempts the authority of state regulatory agencies to subject regional interstate systems to a patchwork of inconsistent and potentially burdensome state regulations.

33. As earlier noted, common carrier regulation will enable the Commission to charge a relatively high per-transmitter fee. The benefits of this fee to deter speculation are substantial. Consequently, there is an inherent advantage in selecting common carrier regulation.

34. The only inherent disadvantage would appear to be the possibility that common carrier operations would be subject to a multitude of differing state regulations. As it did with nationwide paging channels in the 931 MHz band,<sup>7/</sup> the Commission should preempt the ability of states to subject interstate narrowband PCS

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<sup>7/</sup> Amendment of Parts 2 and 22 to Allocate Spectrum in 928-941 MHz Band, Memorandum Opinion and Order on Reconsideration (Part 2), 93 FCC 2d 908 (1983).

operations to state entry and tariffing requirements. This is essential in order for the service to develop free of artificial restrictions.

#### IX. Technical Standards

35. The Commission is proposing technical standards for narrowband PCS operations derived from Part 22 of the Commission's rules governing the radio common carrier services. Arch supports this approach.

36. Particularly with respect to operations in the 930-931 MHz band, Arch believes that it is important for narrowband PCS operators to be able to operate at relatively high base transmit powers in order to operate successfully in proximity to the high-powered common carrier paging and private carrier paging stations which are presently authorized in the immediately adjoining bands. Arch also believes that the ability of narrowband PCS operators to satisfy demands for wide-area service will be enhanced by adopting the height/power limits which have proved workable in the radio common carrier services.

37. Again, however, Arch urges the Commission to maintain sufficient distinctions between the narrowband PCS allocation and existing paging allocations so that licensees are properly incited to devote operations on the newly allocated spectrum solely to advanced technologies.

## **X. Pioneer's Preferences**

38. In adopting the procedures by which proponents of new services could request and receive licensing preferences when they were responsible for significant innovations, the Commission made it clear that the standards these "pioneers" would have to meet would be extremely high.<sup>8/</sup> Indeed, the standard was to be even higher with respect to any nationwide licensing preference, due to the potential anticompetitive aspects of granting such a preference.

39. In reviewing the portions of the Notice dealing with narrowband preference issues, it appears to Arch that the objectives the Commission sought to advance by adopting a preference procedure have been lost. Rather than encouraging a small number of true innovators, the Commission is being inundated with preference requests, many of which appear to be relatively pedestrian and duplicative in nature. In the meantime, the Commission's precious resources, which could be better spent on the underlying allocation proceeding which will benefit the entire populace, are being devoted to numerous rounds of pleadings as various preference applicants seek to jockey for position vis-a-vis their competitors.

40. It also appears to Arch that the preference standard has been relaxed. First, while MTel may have succeeded in demonstrating the theoretical possibility of transmitting information at increased speeds, its work does not appear to be different in kind from experimentation being conducted by paging equipment manufacturers

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<sup>8/</sup> Establishment of Procedures to Provide a Preference to Applicants Proposing an Allocation for New Services, Report and Order, 6 FCC Rcd 3488 (1991); recon. granted in part, Memorandum Opinion and Order ("MO&O"), 7 FCC Rcd 1808 (1992).

and others. Arch does not consider the testing that MTel has completed to date to represent a sufficient advancement in technology to qualify for a preference. Nor have others made what Arch believes to be seminal advancements.

41. Similarly, the Commission's tentative conclusion that MTel's proposed service appears to be an inherently nationwide service is completely unsupported. Arch's experience has been that there are in fact a relatively small percentage of potential messaging service customers who have a *bona fide* need for nationwide service. See discussion supra at para. 19. Arch believes the Commission should stick with its original concept that the grant of nationwide preferences would be the exception, and not the rule.<sup>2/</sup>

42. Ultimately, Arch believes that MTel and other proponents of narrowband PCS can be accommodated through the adoption by the Commission of a well-reasoned channel assignment plan which offers meaningful licensing opportunities to serious proponents of advanced

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<sup>2/</sup> In its order on reconsideration of the pioneer preference rules, the Commission emphasized its intent to limit nationwide preferences:

[W]e continue to believe that in general a license in one service area is appropriate. As we stated in the Report and Order: 'Our goal is to create an incentive for innovation . . . .' [Report and Order at 3495]. We must balance this goal against our long-standing desire to encourage diversity and competition in communications services. The best way to achieve this balance generally is to limit the preference benefit to a single license. In any particular proceeding, however, we may choose to award a nationwide preference or a preference for more than one service area if there is a compelling reason to do so. [Emphasis added].

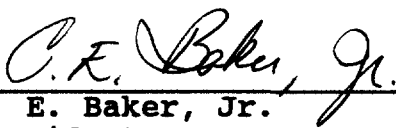
services. This would be a much better approach to the process than relaxing the pioneer preference standards.

#### XI. Conclusion

43. The foregoing premises having been duly considered, Arch respectfully requests that the Commission adopt licensing rules with respect to narrowband PCS with due consideration to the foregoing comments.

Respectfully submitted,

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\_\_\_\_\_  
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Dated: November 9, 1992

DC01 36854

**CERTIFICATE OF SERVICE**

I, Lois L. Trader, a secretary in the law firm of Bryan Cave, do hereby certify that on this 9th day of November, 1992 copies of the foregoing Comments of Arch Communications Group, Inc. were hand delivered, courier charges prepaid, to the following:

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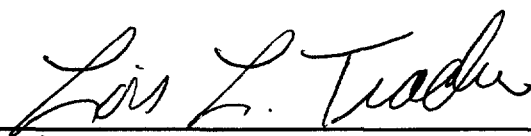
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